Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

      1-20.   (Canceled).

      21.   (Currently amended) A computer-implemented method of generating a graphical warp through transformation of an undeformed model to a deformed model, the method comprising:

      receiving information specifying the undeformed model;

      receiving a set of feature specifications defined over the undeformed model, each feature specification comprising a source feature and a target feature;

      receiving, independent of the set of feature specifications defined over the undeformed model, a set of transformations [[for]] that map[[ping]] the source feature to the target feature in each feature specification in the set of feature specifications;

      receiving a set of strength fields corresponding to the set of feature specifications, the set of strength fields defined over the undeformed model for scaling the magnitude of transformations in the set of transformations to generate a set of scaled transformations;

      receiving, independent of the set of strength fields, a set of weighting fields corresponding to the set of feature specifications, the set of weight fields defined over the undeformed model for determining the relative influence of the set of scaled transformations; and

      generating the deformed model independent of receiving the set of feature specifications using a graphical warp through transformation of the undeformed model to the deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model.

22.   (Previously Presented) The method of claim 21 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source position of a continuous feature and a target feature identifying a target position of the continuous feature.

23.   (Previously Presented) The method of claim 21 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source position of a discrete feature and a target feature identifying a target position of the discrete feature.

24.   (Previously Presented) The method of claim 21 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source position of a feature point and a target feature identifying a target position of the feature point.

25.   (Previously Presented) The method of claim 21 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source coordinate frame and a target feature identifying a target coordinate frame.

26.   (Previously Presented) The method of claim 21 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source curve and a target feature identifying a target curve.

27.   (Previously Presented) The method of claim 21 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source surface and a target feature identifying a target surface.

28.   (Previously Presented) The method of claim 21 wherein the set of feature specifications comprises a first feature specification comprising a source continuous feature and a target continuous feature, and a second feature specification comprising a source discrete feature and a target discrete feature.

29.   (Previously Presented) The method of claim 21 wherein generating the deformed model comprises:

computing a sum of the set of scaled transformations weighted by the set of weighting fields, for deforming the undeformed model to generate the deformed model.

30.   (Currently amended) A computer-implemented method of generating a graphical warp, the method comprising:

receiving information specifying an undeformed model;

receiving a parameter set specifying a warp;

determining, based upon the parameter set, a set of transformations that map a source feature defined over the undeformed model to a target feature defined over the undeformed model, a set of strength fields defined over the undeformed model, and a set of weighting fields defined over the undeformed model; and

determining a deformation function based upon the set of transformations, the set of strength fields, and the set of weighting fields; and

applying the deformation function to the undeformed model independent of receiving the parameter set to generate a deformed model.

31.   (Previously Presented) The method of claim 30 wherein:

the set of transformations comprises parameterized transformations;

the determining comprises applying a sampling function to the set of parameterized transformations, the set of strength fields, and the set of weighting fields to generate a set of discretized transformations, a set of sampled strength fields, and a set of sampled weighting fields; and

determining the deformation function comprises computing the deformation function using the set of discretized transformations, the set of sampled strength fields, and the set of sampled weighting fields.

32.   (Currently amended) A computer program product stored on a computer-readable medium for generating a graphical warp through transformation of an undeformed model to a deformed model, the computer program product comprising:

code for receiving said undeformed model and a set of feature specifications defined over the undeformed model, each of said set of feature specifications comprising a source feature, a target feature, and related deformation parameters;

code for receiving, independent of said set of feature specifications defined over the undeformed model, a set of transformations corresponding to said set of feature specifications and for mapping said source feature to said target feature in each of said set of feature specifications;

code for receiving a set of strength fields corresponding to said set of feature specifications and defined over said undeformed model for scaling the magnitude of each of said set of transformations, establishing a set of scaled transformations;

code for receiving, independent of said set of strength fields, a set of weighting fields corresponding to said set of feature specifications and defined over said undeformed model for determining the relative influence of said set of scaled transformations; and

code for computing a sum of said set of scaled transformations weighted by said set of weighting fields, for deforming said undeformed model independent of receiving said set of feature specifications to generate said deformed model using a graphical warp through transformation of said undeformed model to said deformed model.

33.   (Previously Presented) The computer program product of claim 32 wherein at least one of said set of feature specifications is continuous and has corresponding parameterized strength field, transformation, and weighting field, the computer program product further comprising:

code for receiving a sampling function for discretizing said parameterized transformation and sampling said strength field and said weighting field;

code for computing a discretized transformation, a sampled strength field, and a sampled weighting field with said sampling function; and wherein said step of computing a sum

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of said set of scaled transformations employs said discretized transformation, said sampled strength field, and said sampled weighting field.

34.   (Currently amended) A computer program product stored on a computer-readable medium for generating a graphical warp through transformation of an undeformed model to a deformed model, the computer program product comprising:

code for receiving information specifying the undeformed model;

code for receiving a set of feature specifications defined over the undeformed model, each feature specification comprising a source feature and a target feature;

code for receiving, independent of the set of feature specifications defined over the undeformed model, a set of transformations [[for]] that map[[ping]] the source feature to the target feature in each feature specification in the set of feature specifications;

code for receiving a set of strength fields corresponding to the set of feature specifications, the set of strength fields defined over the undeformed model for scaling the magnitude of transformations in the set of transformations to generate a set of scaled transformations;

code for receiving, independent of the set of strength fields, a set of weighting fields corresponding to the set of feature specifications, the set of weighting fields defined over the undeformed model for determining the relative influence of the set of scaled transformations; and

code for generating the deformed model independent of receiving the set of feature specifications using a graphical warp through transformation of the undeformed model to the deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model.

35.   (Previously Presented) The computer program product of claim 34 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source position of a continuous feature and a target feature identifying a target position of the continuous feature.

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36.   (Previously Presented) The computer program product of claim 34 wherein the set of feature specifications comprises a first feature specification comprising a source feature identifying a source position of a discrete feature and a target feature identifying a target position of the discrete feature.

37.   (Currently amended) A computer program product stored on a computer-readable medium for generating a graphical warp, the computer program product comprising:

code for receiving information specifying an undeformed model;

code for receiving a parameter set specifying a warp;

code for determining, based upon the parameter set, a set of transformations that map a source feature defined over the undeformed model to a target feature defined over the undeformed model, a set of strength fields defined over the undeformed model, and a set of weighting fields defined over the undeformed model; and

code for determining a deformation function based upon the set of transformations, the set of strength fields, and the set of weighting fields; and

code for applying the deformation function to the undeformed model independent of receiving the parameter set to generate a deformed model.

38.   (Previously Presented) The computer program product of claim 37 wherein:

the set of transformations comprises parameterized transformations;

the code for determining comprises code for applying a sampling function to the set of parameterized transformations, the set of strength fields, and the set of weighting fields to generate a set of discretized transformations, a set of sampled strength fields, and a set of sampled weighting fields; and

the code for determining the deformation function comprises code for computing the deformation function using the set of discretized transformations, the set of sampled strength fields, and the set of sampled weighting fields.

39.   (Currently amended) A system for generating a graphical warp through transformation of an undeformed model to a deformed model, the system comprising:

a processor; and

a memory coupled to the processor, the memory configured to store a plurality of instructions executable by the processor, the plurality of instructions comprising:

instructions for receiving information specifying the undeformed model;

instructions for receiving a set of feature specifications <u>defined over the undeformed model</u>, each feature specification comprising a source feature and a target feature;

instructions for receiving, independent of the set of feature specifications <u>defined over the undeformed model</u>, a set of transformations [[for]] <u>that</u> map[[ping]] the source feature to the target feature in each feature specification in the set of feature specifications;

instructions for receiving a set of strength fields <u>corresponding to the set of feature specifications, the set of strength fields</u> defined over the undeformed model for scaling the magnitude of transformations in the set of transformations to generate a set of scaled transformations;

instructions for receiving, independent of the set of strength fields, a set of weighting fields <u>corresponding to the set of feature specifications, the set of weighting fields</u> defined over the undeformed model for determining the relative influence of the set of scaled transformations; and

instructions for generating the deformed model <u>independent of receiving the set of feature specifications</u> using a graphical warp through transformation of the undeformed model to the deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model.

40.   (Currently amended) A system for generating a graphical warp, the system comprising:

a processor; and

a memory coupled to the processor, the memory configured to store a plurality of instructions executable by the processor, the plurality of instructions comprising:

instructions for receiving information specifying an undeformed model;

instructions for receiving a parameter set specifying a warp;

instructions for determining, based upon the parameter set, a set of transformations that map a source feature defined over the undeformed model to a target feature defined over the undeformed model, a set of strength fields defined over the undeformed model, and a set of weighting fields defined over the undeformed model; and

instructions for determining a deformation function based upon the set of transformations, the set of strength fields, and the set of weighting fields; and

instructions for applying the deformation function to the undeformed model independent of receiving the parameter set to generate a deformed model.